

GOVERNMENT STATUS REPORT, SWEDEN

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Swedish Road Administration

Government Status Report from Sweden

FATALITIES

The Swedish overall long-term safety objective within the road transport system was settled in 1997, when the Swedish parliament voted for the "Vision Zero". This vision states that ultimately no one should be killed or seriously injured by the road transport system.

Sweden has a long tradition in setting quantitative traffic safety targets. After a period of positive development in the early 1990ies a target was set at 400 fatalities in 1994. This target was confirmed by the parliament in 1997 and a new 10-year target was set at a 50% reduction for 2007. The target to have a maximum of 270 fatalities in 2007 is a major challenge and will put high demands on all sectors in society influencing the traffic safety level.

Table 1.
Number of fatalities on Swedish roads

Accident Year	Fatalities
1989	904
1990	772
1991	745
1992	759
1993	632
1994	589
1995	572
1996	537
1997	541
1998	531
1999	580
2000	591
2001	583
2002	532
2003	529
2004	495

With around 500 fatalities per year Sweden is still one of the safest countries when it comes to road traffic, with a level of 5,5 fatalities per 100.000 inhabitants. This is around half of the European Union risk average (10,4 fatalities per 100 000inhabitants year 2002).

EFFECTS OF ACTIVITIES 2004

Analysis of the traffic safety level in 2004 has indicated 42 saved lives can be attributed to known actions and states in the road transport system during the year. This is compared to the situation in 2003. 16 of the saved lives can be attributed to improvements in the national road network. These improvements contain both the up-grading of existing roads and investments in new infrastructure. An increase of police enforcement of seat belt use can explain 6 saved lives and increased surveillance of speeds, using both police force and automatic cameras have saved two more persons. The police forces have also increased their alcohol breath tests and that has saved 7 more lives. An increased use of bicycle helmets explains one more saved life. The exchange of cars in the vehicle fleet is estimated to improve the situation in a way that 10 more fatalities are saved. The benefit from the vehicle fleet exchange comes both from general improvements in passive safety, to a large degree driven by Euro NCAP, and the introduction of ESC (electronic stability control). In December approximately 70% of all cars sold in Sweden were equipped with ESC.

ROAD SAFETY ORGANISATION

The Ministry of Industry, Employment and Communications is responsible for the traffic safety in Sweden. The ministry is limited in size and the Swedish Road Administration (SRA) handles most of the practical work. The main other bodies active in road traffic safety efforts are the police and the local authorities. Other important parties are the National Society for Road Safety (NTF), with its member organisations, and transport industry organisations. The Group for National Road Safety Co-operation (GNS) is a central body that co-ordinates co-operation between the SRA, the local authorities and the police. The NTF is an additional member of this group.

POLITICAL DECISIONS

The following part is derived from the publication "Continued action for road safety".

Road traffic plays a large and growing role in the transport system in Sweden. Although traffic has increased by more than 10 per cent since 1997, the death toll on our roads has remained more or less constant. Safer roads and vehicles, in particular, have counteracted the negative effects of the increase in traffic. Even so, road users are at a much greater risk of being killed or injured than users of other modes of transport. In Sweden approximately 500 people are killed and 4 000 are seriously injured every year. It is unacceptable that people should be killed or seriously injured in road accidents. One of the great challenges facing society is to create a well-developed, extensive and long-term sustainable transport system that enables safe and secure accessibility and eliminates the risk of fatal and serious accidents.

Vision Zero

Vision Zero is based upon taking an ethical stand. No lives should be lost or serious injuries suffered as the result of a traffic accident. The only acceptable figure for road deaths and injuries is zero. In October 1997, the Swedish Parliament (the Riksdag) decided that Vision Zero was to be the basis of road safety initiatives in Sweden. The following year, in June 1998, the Riksdag also decided that Vision Zero was to be one of the goals of the national transport policy. The decision concerning Vision Zero has led to extensive involvement in road safety initiatives. The shared responsibility between those who design and operate the road transport system on the one hand, and road users on the other, has had an impact. This involvement has been strengthened through commitments made by many actors in the National Coalition for Road Safety. The bill on continued action for road safety, Government Bill 2003/04:160 (Fortsatt arbete för en säker vägtrafik), proposes that the long-term goal of road safety initiatives remain the same. Vision Zero is an effective strategy for achieving increased road safety.

Intermediate goal for 2007

The intermediate goal for road safety is to reduce the number of road deaths by 50 per cent by 2007 compared to the 1996 level. The road safety bill proposes that efforts for integrating safety into the design of road environments, quality assurance in

transport, work environment measures and vehicle development be continued and intensified. Better observance of traffic regulations by road users will be encouraged, for example, through the development of support systems and more effective surveillance. Considerable effort on the part of all actors will be needed to achieve the goal. The bill asserts the importance of the intermediate goal for motivating and involving a broad spectrum of actors.

Minister Ulrica Messing: *"We all move about in traffic. We ride bicycles and we walk. We drive or take the bus to work, to the day care centre, to the store or to visit friends and relatives. Traffic is part of our everyday lives and we have to be able to be out in it without needing to risk our lives or our health. Between four and five per cent of every age group of the Swedish population is killed or disabled as a result of a traffic accident. Even so, Sweden is one of the safest countries in the world when it comes to road safety. In the road safety bill, the Government focuses on reducing speeds, working to eliminate alcohol-related accidents and stimulating technological development. It is important, in our view, that the long-term goal of Vision Zero remains the same. We can never accept people being killed in road accidents. The intermediate goal of halving the number of road deaths by 2007 is also important for motivating the actors involved to take the measures needed to achieve Vision Zero."*

The National Coalition for Road Safety

In August 2002 the Swedish Government took the initiative for a process in which traffic stakeholders would be inspired and encouraged to better coordinate their activities for safer use of the road transport system – The National Coalition for Road Safety. A number of actors have made far-reaching pledges to improve road safety. The taxi and road haulage sectors, for example, have made commitments regarding the increased use of seat belts, better observance of speed regulations and sober driving. The Swedish Work Environment Authority will introduce road safety as an important factor when evaluating work environment activities. Road safety initiatives will now continue through regional and local coalitions for increased road safety.

Minister Ulrica Messing: *"There are many positive forces in our country that actively, devotedly and persistently work to improve road safety. Through the National Coalition for Road Safety, I have met with agencies, NGOs, companies and trade organisations. Together, we have high ambitions and a high level of*

expertise to continue actively moving road safety initiatives forward. Work now needs to be continued at local and regional levels. At national level, road safety initiatives have been successful and I am confident that at local and regional levels they will produce valuable results. ”

Work in progress

New quality system

Follow-up provides new information about road accidents and what can be done to prevent them. The National Road Administration conducts in-depth studies of all fatal accidents and examines whether they could have been prevented. After each in-depth study, a declaration of intent is presented outlining the measures to be taken as a result of the accident.

New road design

Vision Zero has created a need to develop new solutions to improve road safety and thereby also a demand for a wide range of development and pilot projects. New measures and methods for designing roads have been developed and introduced, for example, median guardrails.

A more efficient market for safety solutions

Information provides consumers with the chance to choose products that improve safety. Consumer information programmes, such as the European crashworthiness evaluations carried out by Euro NCAP, is one such example.

Bicycle helmet requirement for children under the age of 15

The Government has decided that as of 1 January 2005 it will be obligatory for children under the age of 15 to wear a bicycle helmet when they ride a bicycle or are a passenger on a bicycle. The helmet requirement means children will be cycling under safer conditions.

Minister Ulrica Messing: *”Technological advances are occurring at a rapid pace. New technology such as seat belt reminders, alcolocks and intelligent speed adaptation (ISA) makes using our vehicles safer. We are also getting much better at designing our road infrastructure so that accidents can be prevented and injuries minimised. The fact that Sweden is one of the*

safest countries in the world when it comes to road safety encourages us in our efforts. We will continue and intensify our road safety efforts. And we’re on the right track! It is also important to make use of our knowledge of road safety from a business point of view. The Swedish Business Development Agency (NUTEK) has now been given the task of developing a strategy for how Vision Zero can promote the development of the Swedish business sector.”

Safer roads

The bill on continued action for road safety contains the following suggestions for safer roads:

New system for speed limits

Speed limits should be based on Vision Zero. For this reason, the National Road Administration has been given the task of developing a strategy for gradually adjusting speed limits based on Vision Zero as well as the demands for accessibility, sound environment and positive regional development.

SEK 4.9 billion for physical road safety measures

Efforts to reduce the risk and consequences of head-on, single vehicle and overtaking accidents on country roads will continue. Therefore, SEK 4.9 billion will be earmarked for physical road safety measures such as roads with median guardrails, safer intersections and road shoulders.

Continued road safety initiatives in the municipalities

Municipalities should continue their successful road safety initiatives with further improvements to urban traffic environments. The responsibility they have for their citizens is extensive, and includes their role as employer and transport purchaser. This should serve as a guide for municipalities’ road safety initiatives.

Minister Ulrica Messing: *”Initiatives such as roads with median guardrails, improvements to road shoulders and roundabouts have kept the number of accidents at a constant level even though traffic has increased. We will now continue the important initiatives targeting safety-enhancing roads investments. It is my hope that, by means of a new speed limit system, speed limits will be more widely accepted among road users, and that road safety will improve.”*

Initiatives by government agencies and companies

Government agencies and companies, in line with the expectations of society, should develop their own initiatives that take into consideration the requirements of the environment and road safety. This applies to both the procurement process and the provision of transport services. The Government will continue to take initiatives aimed at accelerating these efforts.

Alcolocks required in all new cars

An inquiry has been appointed to examine the possibility of introducing a requirement that all new cars in Sweden be equipped with an alcolock no later than 2012. The inquiry will also consider measures that can be taken to increase the acceptance and use of alcolocks before such a requirement is introduced. The steps to be examined prior to a general introduction include:

- how to stimulate technological development,
- how to extend the pilot programme involving conditional driving licence suspension,
- the possibility of an earlier introduction of the alcolock requirement for certain categories of vehicles, and
- the possibility of using alcolocks in combination with rehabilitation for people with alcohol-related problems.

A market for car equipment that contributes to improved road safety

The public sector plays an important role when it comes to creating a market for Intelligent Speed Adaptation (ISA), alcolocks and seat belt reminders. Measures for creating a market of this kind include quality assurance for transport and consumer information. ISA is a very promising method for helping drivers keep to the speed limit. Sweden will promote the inclusion of ISA in the consumer information programme, Euro NCAP. Retrofitting cars with seat belt reminder systems is important since seat belts are a car's most important piece of safety equipment. The National Road Administration is working to facilitate retrofitting in older vehicles.

Crash protection devices for heavy vehicles

Sweden must be proactive in the EU and globally when it comes to the development of crash protection devices for all categories of heavy vehicles.

Information initiatives to reduce driver distractions such as the use of mobile phones

Information initiatives to highlight the increased risks associated with driver distractions will be intensified. The sensible use of mobile phones while driving, combined with advanced technology for safe use, should help minimise safety risks.

Automatic Speed Control

The Automatic Speed Control system using speed cameras has proven to have very positive effects on road safety and will therefore be continued. A committee of inquiry will be appointed to examine the possibility of extending the use of this system and making it permanent, and will present proposals for financing.

Fines for road traffic offences

A committee of inquiry will be appointed to review the level of fines for road traffic offences.

Road safety education in schools

Road safety education in schools is to provide thorough knowledge about traffic and develop positive attitudes to safe behaviour in traffic. Knowledge about traffic and attitudes towards risk behaviour in traffic must be built up over a long period of time. The National Agency for Education, in collaboration with the National Road Administration, is conducting a survey of the current status of road safety education in compulsory schools in order to present proposals for how it may be further developed.

Mopeds and all-terrain vehicles

The number of serious accidents involving mopeds is increasing. The Government has appointed a committee of inquiry to review the requirements for driving mopeds and all-terrain vehicles. Tuned mopeds are a serious threat to road safety. Therefore, more powerful measures are needed, both nationally and

within the EU, to prevent unlawful manipulation of the maximum speed of mopeds. Among the measures being considered is the requirement for moped registration.

Doctors' duty to report

Doctors are obliged to report driving licence holders who, for medical reasons, are obviously unfit to drive. However, very few cases concerning, for example, people with alcohol-related problems or other forms of illnesses are reported. The National Road Administration will be asked to determine whether the current system can be improved.

New rules for approving instructors

Instructors are to have held a current driving licence for at least five of the last ten years. People who wish to become instructors must not have had their driving licence revoked in recent years as a result of a serious traffic offence, for example, drunk driving.

Compulsory introductory education

With regard to driver education for a class B driving licence, instructors must undergo compulsory introductory training with the learner driver concerned in order to be approved. The introductory training helps the instructor and the learner driver to set up a safe, effective and efficient driving programme. Training must be able to be offered by educational associations, non-profit organisations, driving schools or others that have received permission from the National Road Administration, which is responsible for supervising the training programmes. To prevent training from involving considerable cost increases for the individual, the option of setting a ceiling for training costs will be introduced. Alcohol and drugs are often contributing factors in traffic accidents involving young people. For this reason, the Government wants education about the dangers of alcohol, drugs and driving included in the existing risk education course (skid training).

Draft law regulating more effective enforcement of excess freight charges for people from non-Nordic countries

After inspection, the police will be allowed to demand prepayment of excess freight charges and prevent continuation of the journey if prepayment is not made.

Draft law on new rules for vehicle escorts

The rules will allow transporters of long, wide and heavy vehicles that today require a police escort to fulfil escort requirements by engaging a road transport escort of their own choice.

Confiscation of car keys in the event of an alcohol-related traffic offence

In Government Bill 2003/04:159, the Ministry of Justice proposes granting the police the right to confiscate property (car keys) to prevent alcohol-related traffic offences.

Minister Ulrica Messing: *"To improve road safety, it is of vital importance that we road users become better at following traffic regulations. Ultimately, we are all responsible for observing speed limits, making sure we are sober when we get behind the wheel and always using seat belts. If everyone takes their responsibility we will be able to fulfil the intermediate goal of reducing the number of deaths by 50 per cent. Unfortunately, the number of speeding offences is actually increasing and 15 000 drivers drive under the influence of alcohol on our roads everyday. We also know that men cause most of the more serious traffic offences. Nine out of ten of those suspected of drunk driving are men, as are 80 per cent of speeding suspects. Introducing alcolocks is an important measure for preventing people from drinking and driving. Speed cameras are an important speed reduction measure. I also believe it is important to focus on young drivers. The compulsory introductory training allows the instructor and the learner driver to set up a safe, effective and efficient driving programme. At the same time, the programme focuses on risk behaviour such as high speeds, alcohol and other drugs in road traffic."*

(End of the part derived from the publication "Continued action for road safety".)

The road traffic safety inspectorate

A committee work on responsibilities of road transport system designers was initiated in 1999 since one of the main ideas in the Vision Zero concept is to add responsibilities to all bodies in society that influence the safety level in the road transport system. The committee proposed the initiation of a new authority, a Road Traffic Inspectorate. The government approved the proposal in 2002. The

inspectorate is organised as an independent part of the Swedish Road Administration.

Sweden now has a new inspectorate with responsibility for a safer road traffic environment that provides a sense of security. The Road Traffic Inspectorate will safeguard the interests of individuals in a safe road transport system. Its work will be characterised by the humanistic view on which "Vision Zero" is based.

The Road Traffic Inspectorate launched its operations on 1 January 2003. It is a supervisory authority, organizationally connected to the Swedish Road Administration, that will operate in collaboration with other organizations in the road safety sector in Sweden to influence system designers and closely monitor their activities so that the road transport system will ultimately be as safe and sound as possible. Safe road traffic is the primary objective and "Vision Zero" is the lodestar that guides the work.

Road Traffic Inspectorate Tasks:

- To monitor and analyse conditions that could substantially affect the design and functioning of the road transport system through taking a holistic view of the road safety goals adopted by public authorities, municipalities and others.

- In dialogue with the organizations referred to above, work to ensure that they apply a systematic procedure to prevent road accidents that result in death or serious injury.

- To co-operate with other players to improve traffic safety on roads.

- To initiate research and development within the road safety sector and monitor research of importance to the operations at the Inspectorate.

The Swedish IVSS Initiative

Intelligent vehicle safety systems (IVSS) are smart technologies to reduce fatalities and severe injuries; this can be done by crash avoidance, injury prevention, mitigation and enhanced handling performance, stability and crash-worthiness of cars and commercial vehicles, that are facilitated by modern IT. Both infrastructure dependent and autonomous vehicle systems are included as are systems for improved safety for unprotected road users in this Swedish R&D program.

Core technologies/focus areas:

1. Driver support & human machine interface (HMI) systems
2. Communication platforms – external/internal to the vehicles
3. Sensor-rich embedded systems
4. Intelligent road infrastructure & telematics
5. Crashworthiness, biomechanics and design of vehicles for crash avoidance (/mitigation) and injury prevention.
6. Dependable systems
7. Vehicle dynamic safety systems

Each focus area includes basic research, applied research and the use/creation of demonstrators. Development of test and verification methods can be addressed in all focus areas.

The IVSS program is a national R&D program that intends to strengthen the use of IT in the improvement of traffic safety.

CONCLUSIONS

- The road fatality risk in Sweden is one of the lowest in the world
- The Vision Zero concept is a new strategy to achieve safe road traffic in Sweden
- New very demanding targets (50% reduction in ten years) has been decided
- New responsibilities for system designers can improve the safety level
- A new Traffic safety inspectorate is established and active since 2003

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More information is available at the Swedish Road Administration home page
<http://www.vv.se>

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